

herein described constitutes a preferred embodiment of the invention, it is to be understood that the invention herein are capable of further modification, and this application is intended to cover any variations, uses, or adaption of the invention herein, following in general the principles of the invention herein and include such departures from the present disclosure as to come within knowledge or customary practice in the art to which the invention herein pertain, and as may be applied to the essential features hereinbefore set forth and falling within the scope of the invention herein or the limits of the appended claims.

What is claimed and desired to be secured by United States Letters Patent is:

1. A method for generating a sequence of hypotheses, comprising:

providing a training set of examples to be classified, said training set of examples having an output variable to be predicted containing N target classes;

providing a learning means for receiving a subset of said training set of examples and generating an initial hypothesis therefrom, said initial hypothesis predicting a target class for each of said training set of examples;

providing a correction means for creating a correction set of examples via a computer-human interface wherein a user validates and corrects the target class of a set of examples beyond said training set of examples, said correction set of examples having an output variable to be predicted containing up to said N target classes;

providing a retraining means for said learning means to receive a subset of said correction set of examples and a subset of said training set of examples, and generating a retraining hypothesis therefrom;

providing a refinement means of appending the end of a sequence of hypotheses with said retraining hypothesis creating a resulting sequence of hypotheses, said resulting sequence of hypotheses predicting the target class of each example;

providing a refinement means of replacing the last hypothesis of said sequence of hypotheses with said retraining hypothesis and the resulting sequence of hypotheses predicting the target class of each example; and

repeating the said correction means, said retraining means, and said refinement means

process.

2. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing an inductive learning algorithm approach.
3. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a neural network approach.
4. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a decision tree approach.
5. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a Bayesian learning approach.
6. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a linear or nonlinear regression approach.
7. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing an instance-based learning approach.
8. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a nearest-neighbor learning approach.
9. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a connectionist learning approach.
10. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a rule-based learning approach.
11. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a pattern recognizer learning approach.
12. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a reinforcement learning approach.
13. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a support vector machine learning approach.
14. The method for generating a sequence of hypotheses of claim 1 wherein said

learning means further comprises providing an ensemble learning approach.

15. The method for generating a sequence of hypotheses of claim 1 wherein said learning means further comprises providing a theory-refinement learning approach.

16. The method for generating a sequence of hypotheses of claim 1 wherein said retraining means further comprises providing a method of combining the said training set of examples with the said correction set of examples.

17. A device, for running on a computer, for generating a sequence of hypotheses, comprising:

an input means for receiving a training set of examples, said training set of examples having an output variable to be predicted containing N target classes;

a learning means for receiving a subset of said training set of examples and generating an initial hypothesis therefrom, said initial hypothesis predicting a target class for each of said training set examples;

a correction means for creating a correction set of examples via a computer-human interface wherein a user validates and corrects the predicted target class of a set of examples beyond said training set of examples, said correction set of examples having an output variable to be predicted containing up to said N target classes;

a retraining means for said learning means to receive a subset of said correction set of examples and a subset of said training set of examples, and generating a retraining hypothesis therefrom;

a refinement means of appending the end of a sequence of hypotheses with said retraining hypothesis creating a resulting sequence of hypotheses, said resulting sequence of hypotheses predicting the target class of each example;

a refinement means of replacing the last hypothesis of said sequence of hypotheses with said retraining hypothesis and the resulting sequence of hypotheses predicting the target class of each example; and

a repeating means, for repeating the said correction means, said retraining means, and said refinement means process.